SEMESTER EXAMINATION DECEMBER-2023

Course Name: - B.Tech (CSE/CE) **Semester: - Ist**

Paper Name: - Manufacturing Process **Paper Code: - TES-104**

Time - 3 Hrs + 20 minutes per hour extra time for V.I. & examinees with writer. **Max Marks-70**

समय– 3 घण्टे + 20 मिनट प्रति घंटे अतिरिक्त–दृष्टिबाधित एवं सह लेखक परीक्षार्थियों के लिए। अधिकतम अंक–70

Instructions:

- The question paper consists of three sections namely A, B, C. All sections are compulsory.
- Section A- Each question carries **3 mark**. **All questions are compulsory**.
- Section B- Answer any **5 out of 7** given questions in maximum one hundred fifty (150) words. Each question carries **7 marks**.
- Section C- Answer any **2 out of 3** given questions in maximum three hundred (300) words. Each question carries **10 marks**.

निर्देश:

- प्रश्न पत्र में तीन खण्ड अ, ब, व स हैं। सभी खण्ड अनिवार्य हैं।
- खण्ड–अ में प्रत्येक प्रश्न तीन अंक का है। **सभी प्रश्न अनिवार्य हैं।**
- खण्ड–ब में **सात प्रश्नों** में से किन्हीं **पाँच** प्रश्नों के उत्तर अधिकतम 150 शब्दों में दें। प्रत्येक प्रश्न **सात अंक** का है।
- खण्ड–स में **तीन प्रश्नों में से किन्हीं दो** प्रश्नों के उत्तर अधिकतम (250-300) शब्दों में दें। प्रत्येक प्रश्न **10 अंक** का है।

Section – A (खण्ड–अ)

Objective Questions(वस्तुनिष्ठ प्रश्न)

1. Answer all the following questions. **5x3 =15**

निम्नलिखित सभी प्रश्न अनिवार्य हैं।

i) Brass is an alloy of-

a) copper and zinc
b) tin and zinc
c) copper and tin
d) copper and Al.

ii) A "die" is used in-

a) casting process
b) extrusion process
c) forging process
d) all of these.

iii) What is 'swing' of a centre lathe?

a) It is the length of the bed
b) It denotes the diameter of the job being machined
c) It is the length of cross slide movement
d) None of these.

iv) For machining a mild steel work piece using carbide tool, the maximum material will be removed at a temperature of-

a) 50°C
b) 100°C
c) 175°C
d) 275°C

v) Thermit welding is a form of-

a) fusion welding
b) gas welding
c) arc welding
d) resistance welding

Section – B (खण्ड–ब)
Short Answer Questions (लघुउत्तरीय प्रश्न)

2. Answer any five of the following questions in maximum 150 words. **5x7=35**
निम्नलिखित में से किन्हीं पाँच प्रश्नों के उत्तर अधिकतम 150 शब्दों में दें।

i) Draw stress-strain curve for a ductile material and brittle material. Describe all the terms of both curve.

ii) Define the following terms:
(*i*) Stiffness, (*ii*) Toughness, (*iii*) Hardness, (*iv*) Creep, and (*v*) Fatigue

iii) What is steel? How is it different from iron? Differentiate between plain carbon steels and alloy steels.

iv) Describe hot working and cold working with their advantage and Disadvantage.

v) Describe different types of welding joints and welding positions with neat sketch.

vi) What do you understand by the term 'Pattern'? Describe pattern allowances and their types.

vii) Define the term 'Machining' and also classify machining process. Describe machine tool and their types.

Section – C (खण्ड–स)
Descriptive Questions (विवरणात्मक प्रश्न)

3. Answer any two of the following question in maximum 300 words. **2x10=20**
निम्नलिखित में से किन्हीं दो प्रश्नों के उत्तर अधिकतम 300 शब्दों में दें।

i) Describe Construction of lathe machine with neat sketch. Write different operations that can perform on lathe machine.

ii) Define casting and explain the term used in casting with neat sketch. Write advantage and application of casting.

iii) Explain soldering and brazing methods with neat sketch. Also write seven difference between soldering and brazing methods.